

What is claimed is:

1. A mechanism for preventing propagation of driving motor noise and vibration on a tape deck comprising a deck chassis, a pinch roller and a capstan axis for conveying a tape, a motor which is mounted on said deck chassis for driving said capstan axis, and a cylinder drum which is mounted on said deck chassis and provided with a head for magnetic-recording and playing on the tape:

wherein said motor is a direct driving motor in which a motor shaft is directly coupled to the capstan axis, and which is controlled by current switching; and,

wherein said motor is electrically insulated from said deck chassis.

2. The mechanism for preventing propagation of driving motor noise and vibration on a tape deck according to claim 1, wherein said direct driving motor is controlled by a pulse width modulation (PWM) control.

3. The mechanism for preventing propagation of driving motor noise and vibration on a tape deck according to claim 2, wherein said direct driving motor is mounted on said deck chassis through an insulating material.

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4. The mechanism for preventing propagation of driving motor noise and vibration on a tape deck according to claim 2, wherein said direct driving motor comprises a rotational axis as a capstan axis, a rotor which is mounted on said rotational axis, a stator core which is wound by a coil being supplied PWM control current and faces to

~~said rotor, and a bearing holder which holds said stator core and supports said rotational axis, and said direct driving motor is mounted through said bearing holder on the deck chassis:~~

~~wherein said bearing holder is made of an insulating material.~~

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5. The mechanism for preventing propagation of driving motor noise and vibration on a tape deck according to claim 2, wherein said cylinder drum is mounted on said deck chassis through an insulator.

6. The tape deck which comprises the mechanism for controlling driving motor noise and vibration on a tape deck according to claim 2.

7. A mechanism for preventing propagation of driving motor noise and vibration on a tape deck comprising a direct driving motor controlled by current switching for driving a capstan axis, and a cylinder drum provided with a rotational cylinder having a head and a fixed cylinder:

wherein a stator core of said direct driving motor, said deck chassis and said cylinder drum are electrically insulated from each other.

8. The mechanism for preventing propagation of driving motor noise and vibration on a tape deck according to claim 7, wherein said direct driving motor is controlled by a pulse width modulation (PWM) control.

9. A mechanism for preventing propagation of driving motor noise and vibration on a tape deck comprising a deck chassis, a pinch

roller and a capstan axis for conveying a tape, a motor which is mounted on said deck chassis for driving said capstan axis, and a cylinder drum which is mounted on said deck chassis and provided with a head for magnetic-recording and playing on the tape:

wherein said motor is a direct driving motor in which a motor shaft is directly coupled to the capstan axis, and which is controlled by current switching;

wherein said motor comprises a rotational axis as a capstan axis, a rotor which is mounted in said rotational axis, a stator core which is <sup>wound</sup>~~wound~~ by a coil being supplied switching control current and faces to said rotor, a bearing holder which is made of an insulating material for holding said stator core and supporting said rotational axis, and a motor PCB (printed circuit board) which is supported by said bearing holder and on which circuit elements for controlling the motor are mounted, and wherein said motor is secured on the deck chassis through the bearing holder; and,

wherein said motor PCB is held in close to where the bearing holder is mounted on the deck chassis, and supported by a supporting member in an electrically insulating state at a distance from where the motor PCB is held.

10. The mechanism for preventing propagation of driving motor noise and vibration on a tape deck according to claim <sup>5</sup>~~9~~, wherein said direct driving motor is controlled by a pulse width modulation (PWM) control,

11. The mechanism for preventing propagation of driving motor

noise and vibration on a tape deck according to claim 10<sup>6</sup>, wherein said supporting member is composed of a projection which is provided toward the motor PCB on said deck chassis and made of an insulating material.

8/12. The mechanism for preventing propagation of driving motor noise and vibration on a tape deck according to claim 10<sup>6</sup>, wherein said supporting member is an extended part of an insulating holder for holding members which are mounted on said deck chassis.

9/13. The mechanism for preventing propagation of driving motor noise and vibration on a tape deck according to claim 10<sup>6</sup>, wherein said supporting member is composed of a projection formed on the deck chassis, and an insulating material intervened between said projection and said motor PCB.

14. The tape deck which is provided with the mechanism which suppresses driving motor noise and vibration on a tape deck according to claim 10.